

[0044] FIG. 9 depicts an illustrative method 900 for protecting a person in a far-side crash. At step 901, a vehicle sensor may detect a far-side crash. The vehicle sensors may be any of sensors 805-830 that sense a vehicle condition and sensors 805-830 may communicate crash information to a controller 860 that analyzes the crash data to determine that a far-side crash has occurred. At step 903, a first airbag positioned in a seatback of a first seat is deployed. For example, when controller 860 (FIG. 8) determines that a far-side crash has happened, controller 860 may initiate, using a signal, deployment of the first airbag. The first airbag may be any of the first airbags in the pairs of airbags depicted in FIGS. 1-7. The first airbag may be positioned in a seatback of a first seat. For example, first airbag 552 (FIG. 5) may be positioned in seatback location 524 (FIG. 5).

[0045] At step 905, a second airbag positioned in a seatback of a second seat is deployed. For example, controller 860 may initiate, using a signal, deployment of the second airbag. The second airbag may be any of the second airbags in the pairs of airbags depicted in FIGS. 1-7. The second airbag may be positioned in a seatback of a first seat. For example, second airbag 554 (FIG. 5) may be positioned in seatback location 526 (FIG. 5). The two airbags may be configured to deploy in a space between the first seat and the second seat. The space between the first seat and the second seat may be as shown in the seat arrangements shown in FIGS. 1-7. The first airbag and the second airbag are configured to act together to support a side of a person facing the far-side crash.

[0046] In an example, the pair of airbags may be deployed to wedge together to support the other of the pair of airbags to form a supportive unit. For example, the first airbag and the second airbag may be deployed to wedge together between the adjacent seatbacks using a frictional force of a first surface of the first airbag and a second surface of the second airbag that is in contact with the first surface. The frictional force may be supplied by a suitable fabric for the first surface and the second surface having a selected coefficient of friction to limit slippage between the two airbags. The wedging of the first airbag and the second airbag provides reciprocal support between the first airbag and the second airbag so that together they provide a reaction surface for a vehicle occupant in the event of a far-side crash. For example, the wedging of the airbags may prevent or limit the pair of airbags from rotating when impacted by a vehicle occupant, thereby limiting the movement of the occupant towards the opposite side of the vehicle.

[0047] In some embodiments, the pair of airbags may be deployed and wedge together using a complementary shape arrangement that includes a convex shape of the first airbag at a portion of the first airbag that is in contact with a concave shape of a second portion of the second airbag. The complementary shapes may be selected to limit slippage between contact portions of the pair of airbags and thus provide a reaction surface for a vehicle occupant.

[0048] The airbags may be designed with different characteristics to protect and support different portions of a person. For example, an upper portion may be designed to support a head of the person. The upper portion of the airbag may be configured to inflate to a soft pressure so that it is soft or pliable in contact with a person's head. The upper portion of the airbag may also have a surface material selected for a softness.

[0049] A lower portion of the airbag may be designed to protect and support a torso of the person. The lower portion of the airbag may be configured to inflate to a firm pressure (greater than the inflation pressure of the upper portion) and may have a surface material selected for stiffness.

[0050] On a contact side between the airbags that does not come into contact with a person, a material may be selected that has a rigid quality that serves to support or brace the other of the airbags. The airbags may also have a material for a surface that comes into contact with a seatback that is selected with a frictional coefficient that causes the airbag to wedge with the seatback to provide additional bracing and support of the airbag pair. A seatback surface area that comes into contact with the airbags may also have a fabric that is selected to allow the wedging of the airbags.

[0051] The embodiments and examples discussed above are intended to be illustrative and not limiting. One skilled in the art would appreciate that components of the assemblies, and steps of the processes discussed herein may be omitted, modified, combined, and/or rearranged, and any additional components or steps may be performed without departing from the scope of the disclosure. More generally, the above disclosure is meant to be exemplary and not limiting. Only the claims that follow are meant to set bounds as to what the present disclosure includes. Furthermore, it should be noted that the features and limitations described in any one embodiment may be applied to any other embodiment herein, and examples relating to one embodiment may be combined with any other embodiment in a suitable manner. It should also be noted that the systems and/or methods described above may be applied to, or used in accordance with, other systems and/or methods.

What is claimed is:

1. An airbag arrangement for protection of a person in a vehicle in a far-side crash, the airbag arrangement comprising:

a first airbag disposed on a right side of a seatback of a first seat in the vehicle;

a second airbag disposed on a left side of a seatback of a second seat in the vehicle, wherein:

the second seat in the vehicle is disposed on the right side of the first seat;

the first airbag and the second airbag are configured to deploy at least partially into space between the first seat and the second seat when the vehicle is involved in a far-side crash; and

the first airbag and the second airbag are configured to act together to support a side of the person facing the far-side crash.

2. The airbag arrangement of claim 1 wherein the first airbag and the second airbag are configured to be deployed substantially concurrently.

3. The airbag arrangement of claim 1 further comprising a vehicle crash sensor configured to:

detect a crash involving the vehicle; and

send a signal to an airbag controller configured to control deployment of the first airbag and the second airbag when the vehicle crash sensor senses a far-side crash in the vehicle.

4. The airbag arrangement of claim 1 wherein the first airbag is configured to provide reciprocal support to the second airbag when the first airbag and the second airbag are deployed.